

**SECTION XV**  
**PARTICIPATION OF ADDITIONAL PARTICIPANTS**

15.1. It is recognized that other national defense organizations may wish to join the Project.

15.2. Mutual consent of the Participants will be required to conduct discussions with potential additional participants. The Participants will discuss the arrangements under which another participant might join, including the furnishing of releasable Project Information for evaluation prior to joining. If the disclosure of Project Information is necessary to conduct discussions, such disclosure will be in accordance with Section IX (Disclosure and Use of Project Information), Section X (Controlled Unclassified Information), Section XII (Security) and Section XIII (Third Party Sales and Transfers) of this MOU.

15.3. The Participants will jointly formulate the provisions under which additional participants might join. The addition of new participants to the Project will require amendment of this MOU by the Participants.

## SECTION XVI CUSTOMS DUTIES, TAXES, AND SIMILAR CHARGES

16.1. Customs duties, import and export taxes, and similar charges will be administered in accordance with each Participant's respective laws and regulations. Insofar as existing national laws and regulations permit, the Participants will endeavor to ensure that such readily identifiable duties, taxes and similar charges, as well as quantitative or other restrictions on imports and exports, are not imposed in connection with work carried out under the **Project CATALYST II**.

16.2. Each Participant will use its best efforts to ensure that customs duties, import and export taxes, and similar charges are administered in a manner favorable to the efficient and economical conduct of the work. If any such duties, taxes, or similar charges are levied, the Participant in whose country they are levied will bear such costs.

16.3. If, in order to apply European Community (EC) regulations, it is necessary to levy duties, then these will be met by the EC member and recipient. To this end, parts of the components of the equipment coming from outside the EC will proceed to their final destination accompanied by the relevant customs document enabling settlement of duties to take place. The duties will be levied as a cost over and above that Participant's shared cost of the Project.

**SECTION XVII**  
**SETTLEMENT OF DISPUTES**

17.1. Disputes between the Participants arising under or relating to this MOU will be resolved only by consultation between the Participants and will not be referred to any national or international tribunal, to any other forum, or to any individual for settlement.

**SECTION XVIII**  
**AMENDMENT, TERMINATION, ENTRY INTO EFFECT, AND DURATION**

18.1. All activities of the Participants under this MOU will be carried out in accordance with their national laws and the responsibilities of the Participants will be subject to the availability of funds for such purposes.

18.2. In the event of a conflict between a Section of this MOU and any Annex to this MOU, the Section will control.

18.3. Except as otherwise provided, this MOU may be amended by the mutual written consent of the Participants. Annexes A, B, D, E and F of this MOU may be amended by the written approval of the SC.

18.4. This MOU may be terminated at any time upon the written consent of the Participants. In the event both Participants decide to terminate this MOU, the Participants will consult prior to the date of termination to ensure termination on the most economical and equitable terms.

18.5. Either Participant may terminate this MOU upon 90 days written notification to the other Participant. Such notice will be the subject of immediate consultation by the SC to decide upon the appropriate course of action. In the event of such termination, the following rules apply:

- 18.5.1. The terminating Participant will continue participation, financial or otherwise, up to the effective date of termination.

- 18.5.2. Each Participant will be responsible for its own Project-related costs associated with termination of the Project.


- 18.5.3. All Project Information and rights therein received under the provisions of this MOU prior to the termination will be retained by the Participants, subject to the provisions of this MOU.

18.6. The respective benefits and responsibilities of the Participants regarding Section VIII (Project Equipment), Section IX (Disclosure and Use of Project Information), Section X (Controlled Unclassified Information), Section XII (Security), Section XIII (Third Party Sales and Transfers), and Section XIV (Liability), and this Section XVIII (Amendment, Termination, Entry into Effect, and Duration) will continue notwithstanding termination or expiration of this MOU.

18.7. This **CATALYST II** MOU which consists of the Introduction, 18 Sections and 6 Annexes will enter into effect upon signature by both Participants and will remain in effect for 10 years. It may be extended by mutual written consent of the Participants.

The Foregoing represents the understandings reached between the Secretary of Defense on behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland upon the matters referred to therein,

FOR THE SECRETARY  
OF DEFENSE  
ON BEHALF OF THE DEPARTMENT  
OF DEFENSE  
OF THE UNITED STATES  
OF AMERICA

/s/   
Signature:

EDWARD T. BAIR  
Name


Program Executive Officer  
Intelligence, Electronic Warfare  
and Sensors

Title

2 May 2003  
Date

Fort Monmouth, NJ, U.S.A  
Location

FOR THE SECRETARY OF STATE  
FOR DEFENCE  
OF THE UNITED KINGDOM  
OF GREAT BRITAIN  
AND NORTHERN IRELAND

/s/   
Signature:

REAR ADMIRAL N C F GUILD, CB  
Name

Executive Director 4  
and  
Controller Of The Navy

Title

7 May 2003  
Date

Bristol, U.K.  
Location

## ANNEX A SYSTEM REQUIREMENTS

### 1. General Description of Operational Requirement.

a. The enhancements to the PROPHET Subsystems accomplished via this cooperative development effort are intended to satisfy a number of the required future growth capabilities of the U.S. Army tactical Intelligence and EW Systems. These requirements are identified in the following applicable documents:

(1) Operational Requirements Document (ORD) for the PROPHET EW System, dated April 2001, with Change 1 dated July 2001.

(2) Operational Requirements Document (ORD) for the Divisional Tactical Unmanned Aerial Vehicle (TUAV), Appendix 1- The TUAV-SIGINT Payload (TSP), dated July 2001.

b. Similarly the enhancements to the SOOTHSAYER Subsystems are intended to satisfy future operational requirements capabilities for the U.K. land forces tactical EW system identified by the User Requirements Document (URD(SL) 4139) for EW 2000 (SOOTHSAYER), dated 3 August 1999.

### 2. Capabilities Required.

a. Continuing upgrades to the PROPHET and SOOTHSAYER Subsystems capabilities are required in the systems' ability to detect, recognize and counter the newest modern signal technologies.

b. The upgrades are required to be developed utilizing commercial off-the-shelf (COTS) and government off-the-shelf (GOTS) technologies so as to be easily integrated into the open systems electronic architectures of the PROPHET and SOOTHSAYER Subsystems in standardized configurations that are deployable on land force tactical ground and air platforms.

## ANNEX B PROJECT PLAN

1. Approach. Each Participant will carryout complementary work packages to develop, demonstrate, test, and evaluate ES, EA and PL technology enhancements as candidate Subsystems capabilities upgrades to the PROPHET and SOOTHSAYER ground and airborne platform systems.

2. Specific Tasks, Schedule, and Deliverables. The Participants will carryout the following program of work during fiscal years 2003 through 2006:

a. Tasks.

(1) U.S.

(a) Develop, demonstrate, test, and evaluate an advanced ground based communications intelligence (COMINT) ES subsystem risk reduction demonstrator incorporating the U.K. SAGE, COTS, EW hardware and software in a U.S. HMMWV vehicle as a pre-production prototype.

(b) Develop, demonstrate, test, and evaluate a pre-production Prophet Block II/III system in a U.S. HMMWV vehicle with COMINT ES and EA capabilities.

(c) Develop, demonstrate, test, and evaluate two (COMINT) ES payloads for UAV (TSP) and other airborne applications.

(d) Develop, demonstrate, test, and evaluate technology enhancements to the CHALS family of precision location subsystems that includes miniaturization improvements to operational performance, and information processing capabilities. Provide improved CHALS capability to the U.K. for integration in the U.K. advanced communications EW technology demonstrator (SAGE).

(2) U.K.

(a) Develop, demonstrate, test, and evaluate an advanced communications EW technology demonstrator (SAGE) incorporating COTS hardware and software, and including ES, EA (Rubicon II and Puma), and PL (CHALS) subsystem capabilities.

(b) Integrate, demonstrate, test, and evaluate the improved U.S. CHALS PL subsystem capability in the advanced communications EW technology demonstrator.

(c) Conduct independent research and development of improved communications ES and EA capabilities for multi-channel (Tigershark), precision location, signal analysis (Dolphin), modern emitters (SAGE Swordfish), signal processing (Shark Analyst II), and communications countermeasures (Puma) to include algorithms and software, for integration in the SAGE demonstrator, pre-production Prophet Block II/III system (via SAGE) and pre-production TSP Subsystem.

(d) Develop, demonstrate, test and evaluate a Demonstration Phase SOOTHSAYER risk reduction system with COMINT ES and EA Subsystem capabilities.

(e) Conduct independent studies and research on concepts for airborne/UAV systems with communications ES and PL capabilities.

(3) Joint U.S. and U.K.

(a) Conduct a joint field demonstration(s) of the U.S. TSP Subsystem, U.S. Prophet Block II/III pre-production system, and the U.K. SAGE demonstrator.

(b) Establish, with the Project Contractors, a ceiling on the cost of the right for the Participants to utilize the capabilities developed under this MOU in their respective PROPHET and SOOTHSAYER programs.

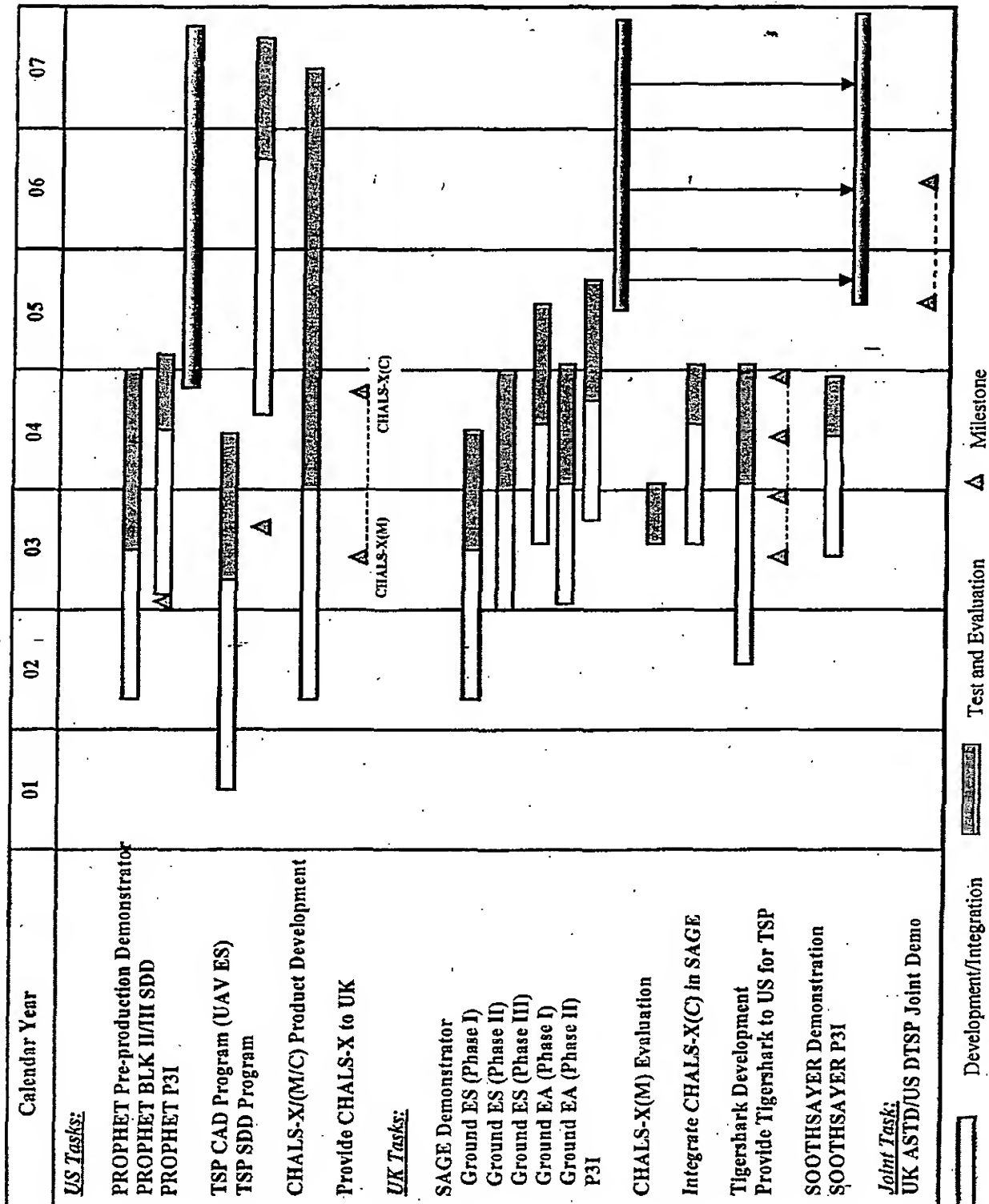
b. Schedule. Appendix 1

c. Deliverables. Appendix 2 -

4. Technical Management/Execution. The PMs will conduct technical management and coordination meetings as required to ensure the Project Plan is being executed and that efforts fulfill the complementary intent of Project work.



# APPENDIX 1 SCHEDULE



## APPENDIX 2 DELIVERABLES

1. In the performance of their tasks set out in Annex B, Project Plan, each Participant is required to develop hardware and software products and disclose Project Background Information, and Project Foreground Information generated as a result of the Project. The deliverables for this CATALYST II Project are as follows but not limited to:

a. U.S.

(1) Prophet Pre-production COMINT ES Demonstrator.

(a) Background Information required: Loan of U.K. SAGE Computer Program.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test and evaluation, lessons learned, and logistics supportability.

(2) PROPHET Block II/III PROPHET Block II/III (ES/EA) System Demonstration & Development (SDD) Pre-Production System.

(a) Background Information required: Loan of U.K. SAGE Computer Program.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test and evaluation, lessons learned, and logistics supportability.

(3) Prophet P3I.

(a) Background Information required: Loan of U.K. SAGE Computer Program.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test and evaluation, lessons learned, and logistics supportability.

(4) TSP CAD and SDD Pre-Production.

(a) Background Information required: Loan of U.K. Tigershark Computer Program.

(b) Foreground Information Generated: Technical reports and presentations on development, demonstration, integration, test and evaluation, lessons learned, and logistics supportability. Interface Computer Software and Computer Documentation necessary to provide integration between technology contributions from the Participants.

(5) CHALS Product Development.

(a) Background Information required: None

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test and evaluation, lessons learned, and logistics supportability.

b. U.K.

(1) SAGE Demonstrator.

(a) Background Information required: None

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test, evaluation and logistics supportability. Interface Computer Software and Computer Documentation necessary to provide integration between technology contributions from the Participants.

(2) CHALS-X(M) Evaluation.

(a) Background Information required: Loan of four U.S. CHALS-X(M) Subsystems (Project Equipment).

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test, evaluation and logistics supportability.

(3) Integrate CHALS- X(C) in SAGE.

(a) Background Information required: Loan of one U.S. CHALS-X(C) Subsystem (Project Equipment) and Computer Programs.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test, evaluation and logistics supportability. Interface Computer Software necessary to provide integration between technology contributions from Participants.

(4) Tigershark Development.

(a) Background Information required: None.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test, evaluation and logistics supportability.

(5) SOOTHSAYER Demonstration Phase and P3I.

(a) Background Information required: None.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test, evaluation and logistics supportability.

c. Joint U.S. and U.K.

(1) Joint field demonstration(s) of the U.S. TSP Subsystem, U.S. PROPHET Block II/III pre-production system, and the U.K. SAGE demonstrator.

(a) Background Information required: None.

(b) Foreground Information generated: Technical reports and presentations on development, demonstration, integration, test, evaluation and logistics supportability.

(2) PROPHET and SOOTHSAYER Cost Ceiling Analysis.

(a) Background Information required: None.

(b) Foreground Information generated: Cost, Schedule and Technical risk report.

2. The Participant's PMs will develop and maintain a Project Information register in accordance with Section IV (Management) of this MOU that will document exchanges of Project Background Information and the generation of Project Foreground Information. Further, the PMs will document Project Equipment Loans in accordance with Section VIII (Project Equipment) and Annex F to this MOU.

## ANNEX C FINANCIAL MATTERS

1. The Cost Target of this Project CATALYST II is 37.40 million fiscal year 2003 U.S. dollars.
2. The financial contributions required to support the Project will be shared as follows:

TABLE C-1

### PROJECT CATALYST II FINANCIAL CONTRIBUTION

Participant	Funding
U.S. DoD	\$18.70 Million (R&D)
U.K. MOD	\$18.70 Million (R&D)

3. As part of its equitable share of Project costs, each Participant will provide non-financial contributions, including both personnel and other resources to support the PROJECT CATALYST II as shown in Table C-2.

TABLE C-2  
PROJECT CATALYST II  
NON-FINANCIAL CONTRIBUTIONS

#### ESTIMATED VALUE

	U.S.	U.K.
International Personnel Participation and Material Contribution		
At Government Facilities (Military/Civil Service Personnel) (16 man-years)		
Project Management (Project Manager, Scientist, Engineer, Financial Manager)	\$ 0.50 Million	\$ 0.50 Million
Materials/Facilities Contribution (Project Background Information)	\$ 39.20 Million	\$ 39.20 Million

4. An estimated contribution schedule for financial and non-financial contributions required to directly support this **Project CATALYST II** is set forth in the Table C-3.

TABLE C-3

TOTAL CONTRIBUTIONS BY FISCAL YEAR  
(FY 2003 Dollars in Millions)

	FY 03	FY 04	FY 05	FY 06	TOTAL
Required	89.80	12.46	10.86	3.68	116.80
U.S.					
F (Table C-1)	3.50	6.70	5.70	2.80	18.70
NF (Table C-2)	39.30	0.13	0.13	0.14	39.70
				TOTAL	58.40
U.K.					
F (Table C-1)	7.70	5.50	4.90	0.60	18.70
NF (Table C-2)	39.30	0.13	0.13	0.14	39.70
				TOTAL	58.40

GRAND TOTAL 116.80

F = Financial Contributions

NF = Non-financial Contributions

## ANNEX D SOFTWARE

### 1. Subsystem Computer Software

a. **Project CATALYST II** Computer Software will be developed utilizing standard commercial software and industry standards to the maximum extent practicable to reduce development cost but recognizing the need to provide long-term support. The Participants will deliver their products to the respective integrating PM in a Computer Program (executable code) and sufficient technical detail to allow integration in the Subsystem.

b. Developed enhancements and the integrated Subsystem Computer Software will be provided to the Participants only in a Computer Program (executable code).

c. All Computer Software, which is Project Background Information provided by one Participant to the other, will be subject to the following restrictions:

(1) Reuse outside the scope of the Project requires written authorization of the providing Participant.

(2) Release of commercial software will be in accordance with the manufacturer's restrictions and the Participants' governmental restrictions.

### 2. Subsystem Computer Software Documentation

The Participants will be provided sufficient Subsystems documentation required to develop and integrate technology enhancements assigned as **Project CATALYST II** R&D tasks, and to operate the integrated Subsystems:

### 3. Computer Software Support

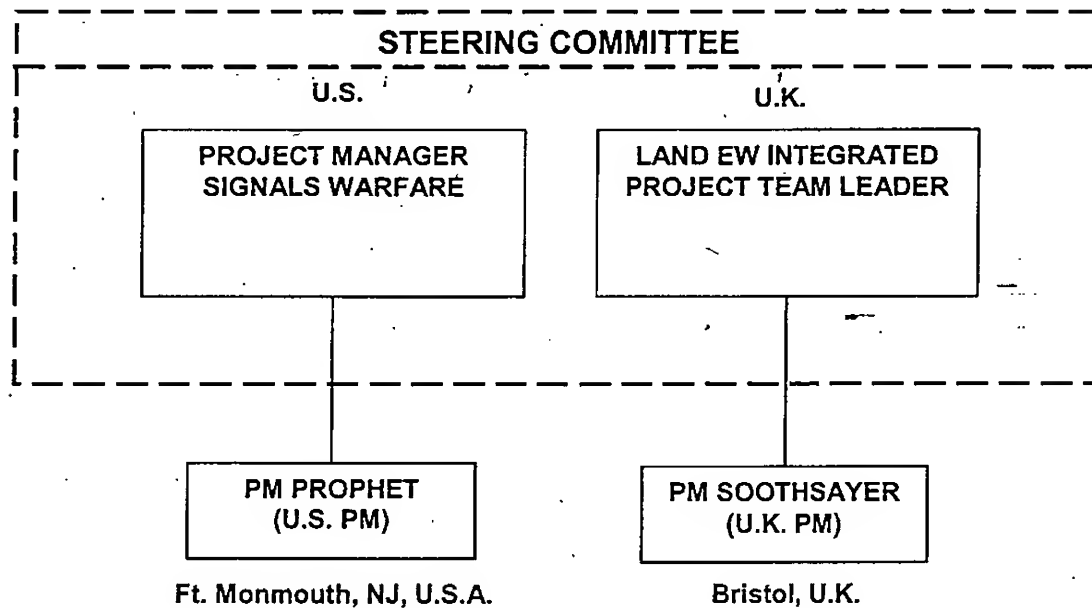
a. All Project Computer Software support will be conducted at Contractor/Government software support activities and will be governed by Participants' applicable laws, policies and procedures.

b. The Participants' computer software support requirements that are of a like nature, including but not limited to software trouble reports and software change proposals, will receive equal treatment within the **Project CATALYST II** software support structure.

## ANNEX E PROJECT MANAGEMENT

1. Staffing of the SC and PM offices is shown in Table E. SC membership will consist of one representative from each of the organizations shown.

Table E





ANNEX F  
INVENTORY OF PROJECT EQUIPMENT EXCHANGES

<u>Nomenclature-</u>	<u>Part No./ Model No.</u>	<u>Equipment Value</u>	<u>Receiving Participant</u>	<u>Date Transferred</u>
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